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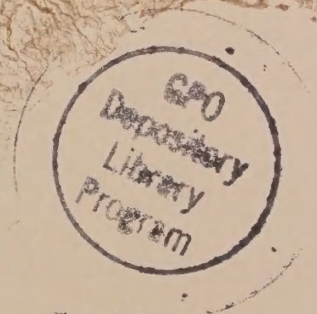




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# URBAN AND COMMUNITY FORESTRY: CHALLENGING THE WEST



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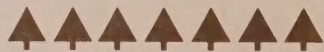


United States  
Department of  
Agriculture

Forest  
Service

State & Private  
Forestry





# **URBAN AND COMMUNITY FORESTRY: CHALLENGING THE WEST**

**Special Thanks to**

**Denver Urban Forest**

**Council of Western State Foresters**

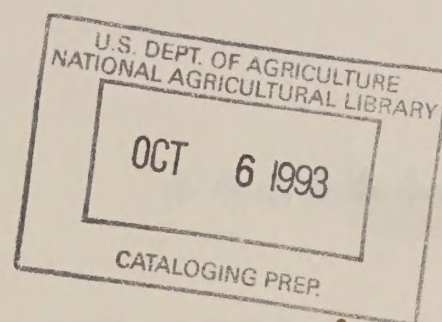
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# TABLE OF CONTENTS



Introduction .....	2
The Western Region .....	3 - 4
State Emphasis .....	5 - 42
Alaska .....	5 - 6
Arizona .....	7 - 8
California .....	9 - 10
Colorado .....	11 - 12
Hawaii .....	13 - 14
Idaho .....	15 - 16
Kansas .....	17 - 18
Montana .....	19 - 20
Nebraska .....	21 - 22
Nevada .....	23 - 24
New Mexico .....	25 - 26
North Dakota .....	27 - 28
Oregon .....	29 - 30
South Dakota .....	31 - 32
The Territories .....	33 - 36
Utah .....	37 - 38
Washington .....	39 - 40
Wyoming .....	41 - 42
Appendix .....	43 - 45



# INTRODUCTION



▲ The Urban and Community Forestry program promotes and improves the economic, environmental, and social well-being of communities through the planting and management of trees, shrubs and other vegetation. These efforts enhance the urban environment and make important contributions to soil, water, and air quality. The benefits of trees in urban environments are endless. Trees shade homes and buildings and improve landscape aesthetics. Trees increase property values, conserve energy, provide valuable wood products for human needs, and provide jobs that strengthen the local economy.

▲ The 1990 Farm Bill generated additional interest and funding for the Urban and Community Forestry Program. This new legislation fortified the authority of the U.S.D.A. Forest Service, working with and through State forestry agencies to provide information, education, technical assistance and challenge

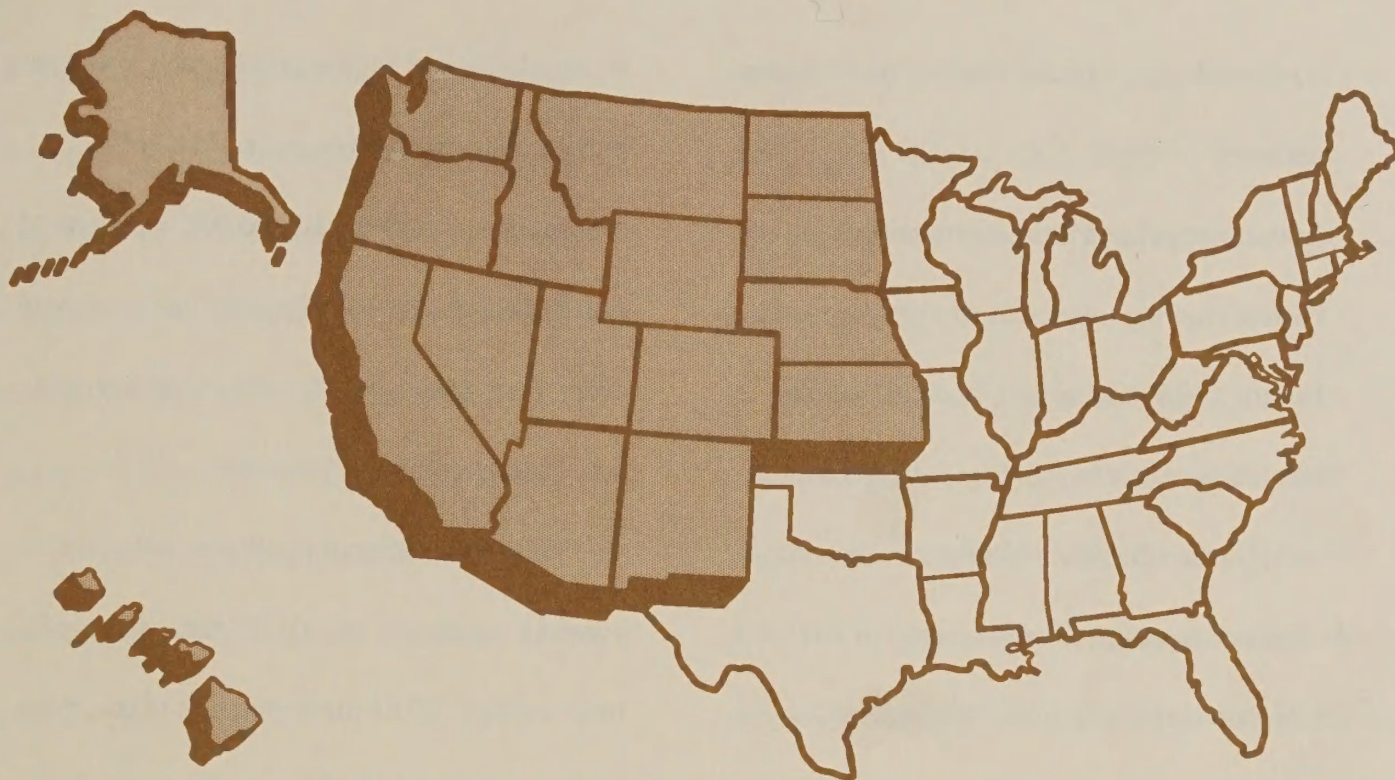
cost-share programs for communities.

▲ As a result of this legislation, each state is currently provided with an annual base funding of \$150,000 in support of an urban and community forestry staff and an advisory council.

▲ Remaining appropriated funds are divided by formula among three U.S. geographic regions: the Northeast, South, and the West. Within regions the funds are further divided for allocation to each state, some resulting in grants to local communities for tree care and planting efforts.

▲ Each region is comprised of a unique blend of geography, climate, population and history that sets it apart from the others: the Northeast with its densely populated urban centers and industrial complexes, the South with its intensively managed agriculture and timber industries, and the West with its great diversity of rugged landscapes, varied climates and endless open space.

# THE WESTERN REGION



▲ This magnitude of diversity is unique to the West and not only creates tremendous opportunities for growth and innovation, but also creates challenges for urban forest managers to establish and maintain sustainable urban forests for future generations.

▲ This publication features the Western Region. It provides a profile of the incredible diversity of the west, which includes 17

states and the territories of American Samoa, Commonwealth of the Northern Marianas and Guam. The unparalleled diversity that abounds in the West creates challenges and opportunities to western urban and community foresters. The West features:

- The most populated state - California
- The least populated state - Wyoming
- The highest point - Mt. McKinley, 20,320 ft.





- The lowest point - Death Valley, 282 ft. below sea level

- Sparsely populated rural communities

- Fastest growing urban sprawl

- Rolling plains and rugged mountain peaks

- Numerous ethnic backgrounds, from Eskimos in Alaska, to the Navajo Indians in Arizona

▲ The management of urban forests in this region is increasingly important because community populations are increasing. Benefits of well-managed community forests include increased property values, more attractive business and residential districts, lowered risks of wildfire in the urban/rural interface, increased wildlife habitat, and enhanced community pride.

▲ While the definition of Community Forestry is standard throughout the country, states and communities in which these duties are carried out are quite different.

▲ Application of community forestry is just as important to the 895 residents of Dubois, Wyoming as it is to the 10,000,000 residents of Los Angeles County, California. Large or small, every community and its residents deserves to benefit from community forestry.

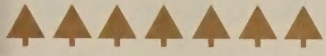
▲ Few communities in the Western Region exceed a population of 30,000 and many are in rural settings. While the population of the West is diverse, it is relatively sparse, particularly when compared to the East.

▲ Regardless of community size or location, a phenomenal interest in community tree management is occurring throughout the West. As a result, there are more trees being planted in communities for the wide variety of benefits they provide.

▲ The Western Region's diverse climates, land areas, and people all contribute to the need for quality management of community trees.



# ALASKA



▲ Alaska is a vast land with several distinct ecological regions, climatic and geographic extremes, and a great variety of environmental conditions. Alaska also has a rich cultural diversity that includes four distinct native groups. While half of the state's population lives in Anchorage, many Alaskans live in widely-scattered and remote villages accessible only by plane or boat.

▲ Many Alaskans have embraced the national tree-planting initiative because it provides the support and guidance needed to beautify and support ecological balance within communities. Trees and forests provide economic, physical and spiritual sustenance to Alaskans who work, recreate and live in the forested areas of the state. Beyond

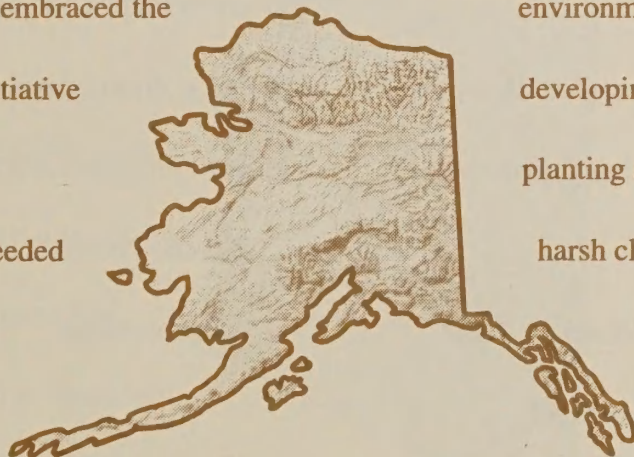
the environmental and aesthetic benefits, tree planting and care are educational experiences that can promote community pride, cooperation and volunteerism.

▲ Many communities in Alaska have experienced rapid growth and expansion. Some communities in treeless parts of the state have requested assistance in planting trees, shrubs and perennials that can survive in their unique

environment. Research is needed in developing plants and methods of planting and care that are suitable to harsh climates.

In Alaska there are few tree-care professionals, and in some areas, so many trees that people overlook the value of them.

▲ In 1991, Alaska hired its first Community Forestry Coordinator and formed the Alaska





Community Forestry Council. The council helps the Division of Forestry determine the emphasis, objectives and priorities for the state's Community Forestry Program. The state and the council will focus on achieving the following objectives in the next five years:

- Maintain an active Alaska Community Forestry Council and support council projects
- Establish local community tree boards and advisory committees
- Provide information, training, and education on the proper techniques for retaining, planting and caring for community trees
- Enhance the understanding and technical skills for sound vegetation maintenance and arboricultural practices
- Increase the number of citizens informed and involved in local volunteer efforts in tree planting and care

- Encourage more local governments to develop effective, long-term, community forest and tree, shrub and perennial management programs
- Encourage state agencies, local governments, industry, private businesses, civic groups and individuals to support and fund community forestry activities
- Increase trees and shrubs planted and cared for in communities on public and private property during development and expansion
- Support programs involved in research, introduction or trials of new tree, shrub and perennial varieties



*And just how big is Alaska? Big. Enormous. It's about the same distance across Alaska as it is from San Diego, California to Savannah, Georgia, about 2,400 miles.*

*Size: 570,000 square miles  
Population: 550,000*



# ARIZONA



▲ Arizona is a land of extraordinary environmental diversity created by its unique geological formations and many climates. Dominated by four distinct geographic regions and vegetation zones, the state's nearly 114,000 square miles of land offers some remarkable contrasts: the plateaus of the north and northeast, the desert and plains of the south and southwest, the broad band of mountains in between and the shrub steppe area in the southeast.

▲ Although Arizona has the sixth largest land area in the nation, and most towns and cities have low population densities, it is classified as urban rather than rural.



The Forestry Division of the Arizona Land Department is in charge of urban and community forestry programs. The areas of

emphasis are:

- Provide technical assistance to communities
  - Encourage individuals and communities to maintain and increase the urban forest
  - Provide education and awareness of the benefits of a healthy urban forest
- ▲ The Urban and Community Forestry goals for 1992 with evaluation and monitoring of the program is an ongoing process. 1992 marks the

second year of the State Land Department Forestry Division Urban and Community Forestry Program. Five goals have been established for the year along with recommended priorities for each. They are:

- Fully implement the goals and objectives of the America the Beautiful program
- Increase the level of community and general

public awareness of the resource value

- Provide assistance to all organizations in the state to attain tree planting, care and maintenance
- Develop inter-agency and public/private partnerships for long term benefits to the urban and community forestry programs
- Administer grants and develop new funding opportunities to promote tree plantings



*The construction of this four-lane highway project did not include any landscaping plans, and left this and other medians in a "raw" unfinished condition.*

*Responding to pressure from various individuals and community groups, the Town Council of Cave Creek, Arizona appointed an advisory committee to design, maintain and landscape Cave Creek Road. The small town, population 2,500, donated their time, energy and talent to raise money and beautify the unsightly median.*





# CALIFORNIA



▲ The third largest state in the Union, California stretches nearly 1000 miles between 32° and 42° north latitude along the Pacific Coast. California varies in width between 150 and 365 miles.

▲ Three-quarters of the state's 158,693 square miles is rolling hills and high mountains. Mt. Whitney soars to 14,494 feet, the loftiest peak

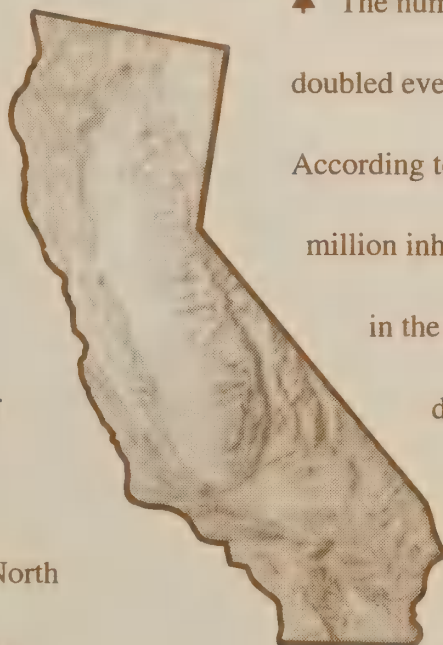
in the United States outside Alaska. In contrast, the lowest point in the Western Hemisphere- Bad Water, with an elevation of 282 feet below sea level- lies just 60 miles east of Mt. Whitney.

▲ Every life-zone found on the North American continent is also found in California. California enjoys a temperate climate, generally milder and more uniform than

elsewhere in the nation. The seasons tend to blur together. However, within its boundaries, exceptions are found - extreme hot and dry deserts, high mountains with perpetual ice and snow, rain-soaked and fogbound stretches of coast. The warm belts, most characteristic of the state and where most of the population resides, lie below 2,000 feet.

▲ The number of people in the State has doubled every 20 years for over a century. According to a recent census, California has 30 million inhabitants, more than any other state in the Union. The majority live in the drier, southern part of the state, and more than 10,000,000 live in Los Angeles County.

▲ To meet the challenges of the diversity of the urban ecosystem and urban population, California's Urban and Community





Forestry Program has identified the following goals for the 1990's:

- Improve the health of California's urban forests
- Increase the sense of stewardship for urban forests among California residents
- Increase priorities for urban forestry funding within communities
- Promote integration of urban forestry with all other components of the urban ecosystem
- Provide means for people to participate in tree planting activities
- Increase understanding of how the urban forest functions and the costs and benefits of managing it
- Educate children, citizens, government and professionals about urban forest planning, planting and management
- Promote educational and participatory programs to protect the public from fire danger



*Urban Forests are usually created by the communities that live in them. This urban area was forested after development.*



# COLORADO



▲ Colorado is a physically, environmentally, and culturally diverse state. Communities exist on arid plains at an elevation of 4000 feet to high mountain valleys of 10,000 feet. The climate is equally extreme, with much of the plains and western plateaus receiving less than 14 inches of moisture. Mountain communities are faced with very short growing seasons.

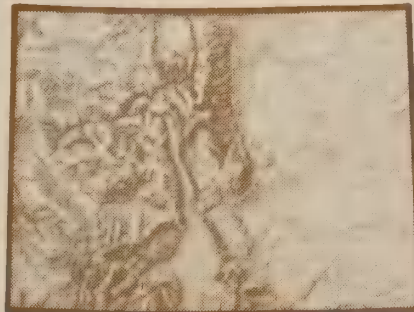
▲ The Colorado Front Range is a 300 mile band of 40 cities from Wyoming to New Mexico where 80 percent of the state's population dwells. The remaining population enjoys living in approximately 300

small, rural communities. The majority of Colorado's communities have a population range of 1,000 to 10,000.

▲ Over a hundred years ago, pioneers establishing farm, ranch, railroad, or mining communities

usually designated someone to be in charge of tree planting and irrigation. Many trees were transplanted from riparian areas or hauled by wagons and trains from eastern nurseries, even before residences were constructed. With persistence and dedication, citizens created hardy community forests.

▲ Dutch elm disease struck Colorado in the late 1960's. Communities and the Colorado State



Forest Service worked jointly to implement effective elmwood sanitation programs. These practices continue to minimize American elm losses. Other

problems of "unmanaged" community forests needed results from a permanent urban forestry program. The Colorado State Forest Service developed a Community Forestry Program which emphasizes the creation of local community tree



boards followed by an assessment of the tree resource. Annual and long range plans are then developed and implemented by local leaders and volunteers. Field foresters from state and federal agencies provide the necessary technical advice and guidance when needed.

▲ The Farm Bill is making an impact at the local level by providing extra human resources, educational and technical assistance, and overall community forestry development.

By the year 2000, Colorado will have:

- More effective partnerships and volunteer coordination
- Communities planning 3 to 5 years ahead for their tree programs
- Earnest educational programs informing citizens about tree planting and care
- Opportunities for private and corporate contributions to improve the state's community tree resource

- Several funding sources to help communities educate their citizens and improve their tree resource



*Treetures are furry, fantasy characters that are part of a new environmental education program to promote tree planting and teach children the benefits and values of trees.*



# HAWAII



▲ Located in the middle of the Pacific Ocean,

Hawaii has an area of 6,425 square miles.

About 75 percent of 1,108,229 people living in

Hawaii, reside on Oahu. The National Arbor

Day Foundation (NADF) has recognized three

of four Hawaii Counties as a Tree City USA. In

addition, NADF recently awarded the

prestigious Growth Award to Oahu and Maui

Counties. All four counties

have established their

Arborist Committee as

mandated by the State of Hawaii

Legislature.

Hawaii's Counties include: Kauai County

serving the islands of Kauai and Niihau; City

and County of Honolulu serving all of the island

of Oahu; Maui County serving the islands of

Molokai, Lanai, Kahoolawe, and Maui; and

Hawaii County serving the island of Hawaii.

▲ Unlike other states, the urban forests benefit

from Hawaii's abundant rainfall and optimum

growing climate. Interestingly enough, Hawaii's

economy depends on its environment. Its

pleasant climate and natural beauty bring

tourists from all over the world. The lush green

forests, vibrant coral reefs, and crystal clear

waters provide both scenic value and revenue

for the state.

▲ Hawaii possesses a wealth of unique plants,

animals and ecosystems. Trees in Hawaii

rarely suffer through cold winters; in

fact, Hawaii has such ideal growing

conditions that the islands are home

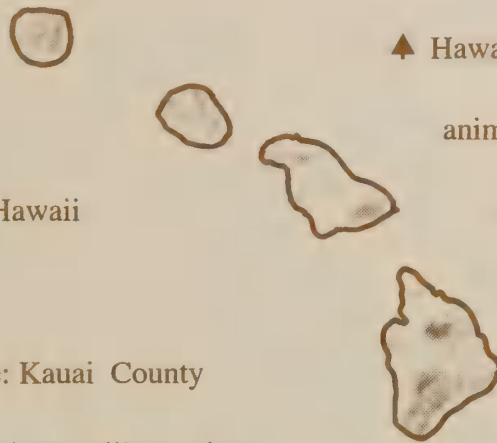
to more unique plant species than any

place of similar size on earth. Over 90 percent

of Hawaii's plants are native only to Hawaii.

▲ The need to develop a statewide network of

urban forestry began in 1992, when the state's





Division of Forestry and Wildlife created the Kaulunani, Hawaii the Beautiful Council to help improve the management of urban trees in Hawaii. In part, this Council provides grass-roots leadership in urban forest management. It complements a national emphasis for community forestry, namely, the America the Beautiful (ATB) program. Next year, a bill will be introduced in the legislature to establish a state urban and community forestry program .

Some of the goals and emphasis of the Kaulunani , Hawaii the Beautiful Council include:

- Improve the quality of urban forest management in the state
- Increase the number of volunteer groups by strengthening community partnerships
- Raise the public's awareness to managing urban trees by developing and distributing educational materials on native and other trees





▲ Community forestry has been practiced in Idaho since the late 1800's. A tree ordinance was adopted for Boise to protect the scarce tree resource in the early 1900's. While just three communities presently have a paid city forester, many others incorporate technical urban forestry or arborist activities with the duties of the parks or streets departments.

No community forestry infrastructure existed before funds for U&CF were allocated from Congress.

▲ Idaho's diverse geography shapes the community forestry program.

The mountain range and topography in the southeast and the high desert in the southwest

support the majority of the citizenry.

▲ Idaho's urban forest is in slightly poorer condition than the national average. This

condition may be related to the fact that Idaho has a larger percentage of large, older trees - which could be declining with age.

▲ Idaho has over 208 urban areas (including 199 incorporated towns). The population of Idaho, according to the U.S. Census Bureau, is 1,006,749. Idaho's total land area is 83,564.

▲ "Urban" is used loosely to describe developed areas with a concentration of people.

These communities cover 564 square miles--yielding a potential urban forest of 361,000

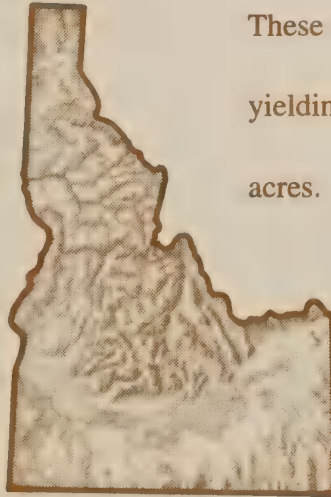
acres. The large number of small communities necessitates that Idaho rely upon the

volunteer component of the urban forestry program.

▲ Based on recent information

(Urban Forests, Vol. 2, No. 4, Aug/Sept 1991),

two private tree spaces exist for every vacant street tree space. This ratio would mean that





Idaho has approximately 4,300,000 available tree planting spaces.

▲ Over a quarter of the communities' forest resources are in fair or poor condition - approximately 1.9 million trees! Through proper maintenance, removal and replanting and better species selection, the value of urban forest resources could be increased by approximately \$3 billion.

▲ Some of the state's goals for community forestry include:

- Complement informational literature with training
- Consolidate training with the city, county and state agencies in order to train wider audiences

and provide greater homogeneity in educational objectives

- Train, certify and consult arborists
- Conduct citizen forester courses for the novice homeowners and volunteers
- Provide technical training courses in using specialized equipment or techniques
- Increase the level of expertise statewide
- Complement the state and local efforts, with volunteer organization and training

▲ The Idaho Nursery Association, through the Urban and Community Forestry Advisory Council, will continue to work with the state urban forestry program.



# KANSAS

▲ Kansas is characterized by a diverse geography and an agricultural economic base.

The state's 783 cities and towns occupy about 1.64 million acres or 3.1 percent of the state land area, of which 1.15 million acres is planted to a highly specialized urban and community forest. This urban forest resource is valued at over \$1.3 billion.

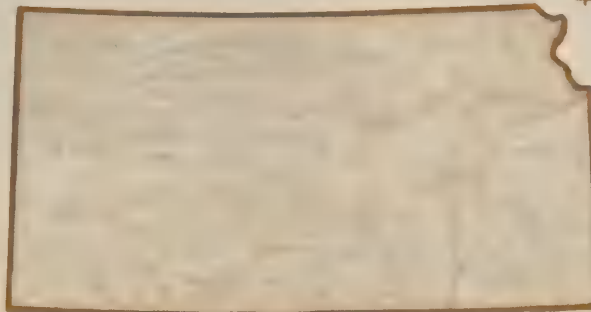
▲ The Kansas urban forest is a planted resource. Seldom did cities develop in natural wooded areas. Kansas, during settlement was characterized by prairie grasses; similarly as our present day cities expand,

such growth occurs in cultivated fields and other agricultural land that is not tree covered.

▲ Because of climate constraints and the relative scarcity of trees in much of the state

our citizens genuinely appreciate trees and value them in their cities.

▲ Kansas enjoys a long history of urban and community forestry programs beginning with a pilot state-wide effort in July 1971. In 1991, Kansas had active programs in 90 cities and tree planting projects in 61. Approximately 68 percent of 90 program cities earned the Tree City USA award which is a reflection of the high program quality that exists.



▲ The America the Beautiful program (ATB) allowed Kansas to greatly expand urban forestry especially in the area of volunteerism. A

statewide Urban Forestry Council with 233 members is in operation and has instituted numerous educational programs. Some examples include:



statewide preferred tree program, tree rebate program, tree care publications, arborist training, tree care workshops, tree board training, and legislature education.

▲ Presently, 53 percent of all Kansans live in ■ city involved in urban and community forestry. These people and more will continue to enjoy the benefits of ■ solid statewide urban forestry program.



*Urban trees are not in their natural setting, ■■ they require special care and maintenance to live and grow.*



# MONTANA



▲ Montana's population is sparse and unevenly distributed. Only Alaska and Wyoming have a lower population density.

▲ The fourth largest state in the United States, Montana has an area of 147,046 square miles. Montana's urban forests span a wide range of terrain and climatic conditions, from the heavily timbered valleys of western Montana to the open prairie of eastern Montana. Because of the Montana's large land area and differing climatic

conditions, many of its communities encounter unique challenges in maintaining and improving their community forests. U&CF programs in the state

need to work on identifying stock suitable for harsher sites.

▲ With about 130 incorporated communities and many other unincorporated areas, Montana

faces obstacles in coordinating and training its communities for U&CF purposes.

Many of the state's communities need to start with basics of urban and community forestry to fit their individual needs. Some of the special goals and emphasis areas for the state include:

- Develop statewide awareness about the importance of community forests and encourage citizens to support and participate in comprehensive community forestry

programs

- Develop communities with the leadership, organization, and resources to carry out successful

community forestry programs

- Make technical advice and assistance readily available for administrators, citizen volunteers, and tree care professionals as they develop





leadership and carry-out community forestry  
management plans

### ▲▲▲ SPECIAL ACCOMPLISHMENT ▲▲▲

Working with the Bureau of Indian Affairs, the Montana Department of State Lands is in the conceptual stages of designing an arborist technical workshop for the nine reservations located in Montana. The workshops will focus on training in a number of arborist skills, safety and equipment use. Three of the objectives of the program are improving tree care in communities on reservations, diversifying individual technical skills, and attracting tribal members into the International Society of Arborists and National Association of Arboriculture.



*Properly placed and cared for trees, such as these, significantly increase residential and commercial property values.*



# NEBRASKA



▲ Located in the heart of the Great Plains region of the United States, Nebraska has a total land area of 49 million acres. Over one-third of the state's population resides in the southeastern portion of the state. Only three of the 535 incorporated communities have a full time professional forester or arborist to care for public trees. Twenty- nine of these communities have populations of over 5,000 while 390 are classified as villages with populations of less than 800 people.

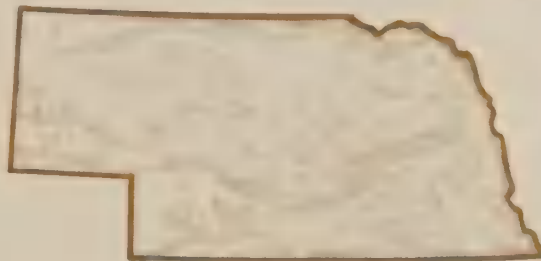
▲ This region of the country is not the best place to be a tree. Much of the state, particularly the western half, was at one time a treeless plain. The stressful environmental conditions caused by very cold winters and hot, dry summers can weaken and disrupt the pro-

gression of growth and development of trees and shrubs. Research efforts in physiology and tree improvement are continually looking for species that show optimal growth under such stressful conditions.

▲ In 1991, the Nebraska Forest Service (NFS) initiated the creation of the Nebraska Community Forestry Council as a part of a national emphasis on community forestry entitled America the Beautiful (ATB). This council plays an important role in implementing the

Community Tree Segments of the ATB program as approved in the 1990 Farm Bill. The NFS is now working with the council to improve the State's

community tree resource through a comprehensive program of education and technical assistance. Heavy emphasis will be placed on





projects that will achieve both public and professional education goals. The NFS will continue to support the Nebraska Arborist Association and the annual Arborist school which will include ■ increased emphasis on tree care workshops as well as locally produced "how to" publications designed with the homeowner in mind.

The council has also moved to establish five district committees that will bring the program directly to the community level.

▲ The Nebraska Forest Service and the Nebraska Community Forestry Council have identified the following program areas to be emphasized over the next five years:

- Develop ■ effective community forestry council
- Assist with volunteer activities
- Promote public awareness and education

- Develop partnerships
- Continue to expand technical assistance to communities
- Seek out and promote grants
- Monitor and evaluate the total program

#### ▲▲▲ SPECIAL ACCOMPLISHMENT ▲▲▲

The village of Cook typifies the spirit of the people of Nebraska. This community of just over 300 people was selected as the best small town in America in 1992. The tree board is the most active in the state, securing three major grants for tree improvement in recent years. In Cook, the tree board is so well thought of that there is ■ waiting list of people to serve.

# NEVADA



▲ Nevada has a population of 1.2 million. The Las Vegas and Reno urban areas contain approximately 80 percent of the population. The remainder of Nevada's population lives in smaller towns and communities throughout the State. Nevada is (per capita) the fastest growing state in the nation. Las Vegas, for example, is growing at the rate of 4,000 people a month.

▲ Nevada is the driest state in the Union.

Rainfall in the state varies from less than 4 inches per year in Las Vegas to a soaking 10 inches in some of the Northern areas.

Temperatures can reach 125° in the summer and plunge to -40° in the winter.

This extreme climate has made trees a scarce commodity and hence extremely valuable and important to residents.

▲ The challenges of growing trees in this harsh

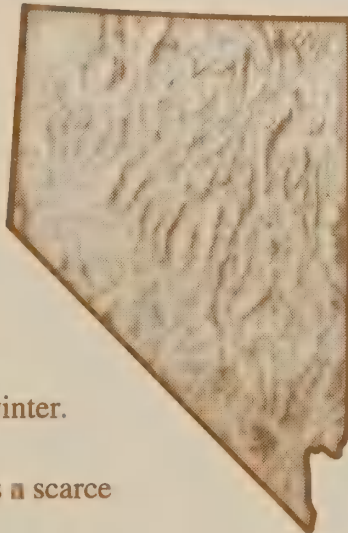
environment are exceeded only by the rewards.

Nevada's trees provide many economic benefits to its communities; enticement to travelers and businesses, improved property values, shade to communities in the summer and shelter from cold winter winds.

Working together the Nevada Division of Forestry and the Nevada Shade Tree Council are tackling the challenge of maintaining and

enhancing the Urban Forests of the Silver State. Together they have identified the following areas to be emphasized over the next 5 years.

- Develop a comprehensive analysis of the states urban forest
- Promote public awareness, education and involvement
- Strengthen and develop partnerships with volunteer groups, communities, local







businesses, corporations and public agencies

- Continue research in species selection and adaptation, water conservation and the energy saving benefits of trees
- Provide technical and financial assistance to communities to develop, implement and expand Urban Forestry programs
- Continue minority outreach and involvement programs
- Assist Nevada communities to develop and complete urban forest inventories

▲▲▲ SPECIAL ACCOMPLISHMENT ▲▲▲

An early goal for Urban Forestry in Nevada involved an effort to reach out to and involve minority groups. As a result assistance was provided to the Reno/Sparks Indian Colony to plan, design and fund a community park in a treeless area of their Hungry Valley Community. Volunteers from the community and the tribe worked together from the beginning to make the project a team effort. The planting at the park was incorporated into a workshop to show local residents the proper way to plant trees and the species that work well in their area.

# NEW MEXICO



▲ A state of the American Southwest, New Mexico is part of the "Old West" of cattle drives, cowboys, and clashes between pioneers and Apache Indians. In the vast flatness of the Great Plains and the rough, weather-scored peaks of its mountain ranges, it still retains much of its frontier flavor.

▲ New Mexico is a semi-arid state where the high plains meet the majestic Rocky Mountains.

While some areas are relatively flat, it also has some of the nation's most rugged mountains. Also, the state has only 258 square miles of water in the form of lakes and rivers.

With a total land area of 121,593 square miles, the nation's fifth

largest state faces quite a challenge to maintain an urban forest.

▲ Despite New Mexico's traditionally rural

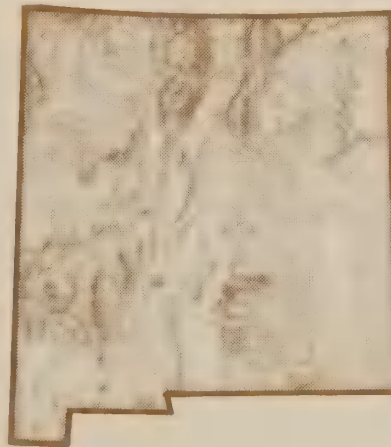
ways, it is becoming urbanized. Nearly half of the population lives in a metropolitan area.

The state has a population of 1.49 million people living in over 77,000 square miles. This population is dispersed among 99 villages, towns and cities. Nearly one-half of New Mexico's communities have populations of less than 1,000 people.

▲ The high percentage of towns with small

populations make it difficult to initiate economically feasible urban forest programs within individual communities. Budgets in small communities are tight and tree planting and maintenance are not normally within the

financial reach of small communities. New Mexico has a diverse Urban Forestry Council which consists of over 50 individuals. The





council provided valuable input into the preparation of the state's five-year plan. Goals and objectives were realistically set which will guide the state during the next five years. The goals endorsed by the council are as follows:

- Administrate state and federal tree planting grant programs
- Determine current status of urban tree resources for all communities in the state
- Have each community establish its own planting goal and help them reach that goal
- Develop and expand partnerships with private, public and neighborhood associations which will cultivate the concept of using tree planting as a vehicle to promote a sense of community
- Sustain the New Mexico Urban Forest Council with open membership
- Publish an urban tree selection guide
- Expand the observance of Arbor Day
- Develop awareness in the public attitude of the economic, environmental, social and psychological benefits that trees provide
- Develop a certification program that insures a well trained, competent and knowledgeable work force



# NORTH DAKOTA



▲ North Dakota is furthest North of the Great Plains States, home to the geographical center of North America, and the least forested state in the U.S. Demands for community forestry assistance increase each year as North Dakota's population becomes more urban. The 1990 Population Census for the State counted 638,800 residents. Seventy percent of these residents live in 367 incorporated communities.

▲ Though only twelve of these communities exceed 5000 residents, seven cities employ fulltime urban forestry professionals responsible for the planting, care and management of public tree resources.

The North Dakota Forest Service helps communities across the state in the development of tree planting plans, short and long term

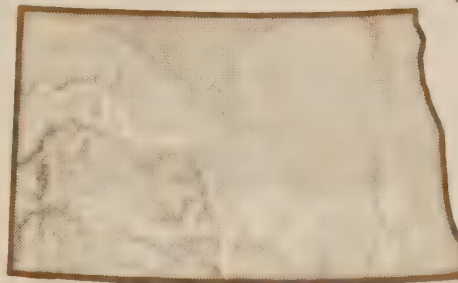
forestry management plans, shade tree ordinances, and pest surveys. Workshops covering a wide variety of forestry topics provide educational training to interested citizens and community leaders.

▲ Tree City USA, a National Arbor Day Foundation program which recognizes communities across the nation for their forestry program efforts, is a very active program in North Dakota. The state ranks 18th in the nation with 31 Tree City USA's.

The desired outcome of the State U&CF Program is to assure high quality, functional, and attractive second generation urban and

community forests. To effectively implement this program in the coming decade, six major program components have been identified:

- Establish and implement program management





and administrative procedures that will facilitate a substantial increase in local forestry program activities and effectively use the funds available

- Educate North Dakotans as to the benefits of community trees and other natural resources.
- Mobilize community and other volunteer groups to join with trained professionals in planting and maintaining trees and develop opportunities to promote and recognize these activities
- Provide community leaders, volunteers,

homeowners, and others with the information and training necessary to plan and carry out tree programs

- Develop criteria and procedures for soliciting and reviewing proposals and awarding grants for State and National Challenge Cost-Share Programs, and develop state level authorizing legislation for U&CF
- Monitor and evaluate the program to assure efficiency and improvement and demonstrate to North Dakotans and to the leaders of the state and nation what the program, with their help, has accomplished

# OREGON

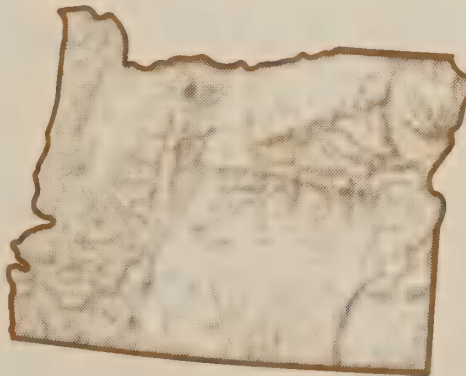


▲ The Cascade Mountain range divides the state of Oregon into 2 distinct geographic regions which encompass six USDA plant hardiness zones. The western third of the state is characterized by abundant rainfall in winter, averaging 60 inches in some locations, and prolonged droughts in the summer. Descending from an 11,000 foot mountain elevation down to sea level where communities withstand 70 mph winds, these different climatic conditions make for unique and different growing situations. The eastern two-thirds of the state is characterized by high elevations with hot summers and cold winters, and endures annual precipitation levels as low as six inches.

▲ Oregon grows some of the most beautiful trees in the world while it faces some of the

toughest climatic challenges of the world.

▲ Oregon's population is as diverse as it's climate. Seventy five percent of Oregon's communities have a population of 5,000 or less. Forty-five percent of the state's entire population lives in the metropolitan area of greater Portland, the states largest city. Only two Oregon cities employ professional urban foresters. Although Oregon's land area totals over 97,000 square miles, population growth



has been intense. Over 70 percent of the population lives within ten miles of Interstate-5, the major north-south interstate highway in

western Oregon, leaving the eastern part of the state sparsely populated. In the 1980's, growth had a major development impact in this corridor, as Oregon and Washington lost an





estimated 75,000 acres annually to development.

▲ The economic and environmental well-being

of Oregon has always been tied to trees.

Assisting the Department of Forestry is the

Oregon Urban and Community Forestry

Council, made up of urban forestry leaders,

professionals, and citizen activists. The

Council's goals are to:

- Raise public awareness and appreciation of the value and importance of urban trees
- Help communities understand economic development and quality of life benefits from urban forestry programs
- Establish an ongoing monitoring program

- Develop specialized assistance efforts for encouraging small communities to develop urban forestry programs
- Encourage and facilitate the development of locally organized and planned community volunteer efforts
- Develop cooperative strategies and partnerships to promote urban forestry awareness through educational programs
- Develop cooperative strategies and promote standards for planting and maintaining urban forests
- Develop long term funding strategies and opportunities for both public and private programs

# SOUTH DAKOTA



▲ The Missouri River divides the state of South Dakota into two distinct geographic regions of almost equal size. East of the Missouri River is the glaciated Prairie Plains region of fertile soils, natural lakes, sloughs, potholes, and north-south oriented rivers. Over 80 percent of the state's 309 incorporated communities and nine of the ten largest cities are located in this region of agricultural croplands. West of the Missouri are the Black Hills, and the Great Plains region where the rugged Badlands are located. Vast tribal holdings of the Sioux Nation, millions of acres of sparsely populated rangeland, and Rapid City, South Dakota's second largest city, is also located here.

▲ In addition to being a land of infinite variety, South Dakota is a "land of savage extremes,"

with temperatures ranging from 40° below zero to 116° above. Average annual precipitation varies from 14 inches in the northwest to 26 inches in the southeast.

▲ Most of South Dakota was treeless grassland before settlement. Because trees are not part of the natural prairie environment they require special care to grow and thrive, especially west of the river. A few tree species, green ash, Siberian elm and American elm were overplanted in the past and today comprise

approximately 60 percent of South Dakota's urban forest. While these species are drought resistant and adapted to South Dakota's harsh

conditions, many are experiencing serious insect and disease problems.





▲ South Dakota's urban forestry program began in 1972, but did not expand and flourish until 1991 when Congress provided funding for the program. With assistance from the state and the federal funds, a 20 member State Urban Forest Council was formed to oversee the growing urban forestry movement, and the position of a full time program coordinator was established.

▲ The Urban Forest Council is beginning to address the many problems facing urban forests. Lack of species diversity, and proper care and maintenance of urban trees, are priorities. The Division of Forestry is cooperating with the Department of Horticulture and Forestry at South Dakota State University, Brookings, to support a position of Assistant Professor of Urban Forestry and Arboriculture which in addition to university duties is responsible for

statewide efforts in urban forestry education.

▲ The Tree City USA program is one of the Division of Forestry's highest priorities. As of 1992, two thirds of the state's urban population lives in a Tree City USA, which is targeted to increase three quarters in the next five years by working with smaller communities currently not in the program.

Grants made available through the urban forestry program have been instrumental in stimulating interest in urban tree planting.

Major goals of South Dakota's program are;

- Strengthen the state urban forest council and widen its scope of activities and level of responsibility
- Eliminate the program's dependency on federal funding
- Stimulate interest from smaller communities, especially Native American housing developments, which are in desperate need of trees



# THE TERRITORIES



**GUAM:** With a total area of 549 square kilometers, Guam is a unique blend of lush tropical limestone forest and tropical grassland. The northern half of the island consists of highly alkaline limestone forest soils while the south has acidic volcanic soils. Annual rainfall ranges from 2000 to 2500 millimeters along the windward and leeward areas of Guam, respectively. The rainy season is July through

November. Associated with the rainy season, tropical depressions, either storms or typhoons, occur on an average of 21 storm events per year. A

typhoon has the potential to strike the island with wind speeds of 280 kilometers per hour. Throughout the dry season Guam is buffeted by

strong trade winds of 25 to 40 kilometers per hour.

▲ These environmental factors coupled with diverse cultures (Chamorro, Filipino, Micronesian and Asian) offer distinct and unique challenges to urban forestry professionals and persons interested in community tree planting projects.

Recognizing the important role of urban forests in energy conservation, for aesthetics, cultural

values and as habitat for wildlife, the Governor of Guam, acting in concert with the Presidents ATB program is taking a lead role in re-greening Guam's urban areas.



▲ Working in close cooperation with the Governor's "Island Beautification Program" Guam's Urban and Community Forester as well



as Guam's newly formed Urban Forestry Advisory Council are targeting schools and other public spaces (parks, roadsides, and villages) as priority areas for tree planting.

Projects to date have included:

- Interacting with youth in schools to further the understanding of the important role urban forests play in energy conservation, aesthetics, shade and habitat for wildlife
- Working with local media on providing information to the general public about site selection, tree planting, and short and long term tree care
- Increasing local, private and government nursery capacity to accommodate the increased

demand for large canopied shade

- Expanding cooperative research efforts with University of Guam
  - A writing contest for all school age youth focusing on the theme of "Benefits of planting more trees on Guam."
  - Cooperative tree planting projects with local military units to re-green many of the local military installations
- ▲ Guam's Urban Forestry program is in its early stages. Continued strong support at the national and local levels will insure that the efforts taken today will flourish, leaving Guam with a legacy of vigorous urban forests for future generations



**AMERICAN SAMOA:** American Samoa is composed of five populated islands in the South Pacific. The islands are characterized by rugged volcanic mountains, small valleys, and a narrow coastal fringe. Approximately one half of the land has slopes of 70 percent or greater. The tropical climate and insular conditions have developed unique communities of native and endemic species.

▲ The people of American Samoa are dependent upon the islands' Natural resources of forests, soils, and coral reefs to maintain their traditional culture and lifestyles. The environmental and aesthetic value of natural areas are complemented by ornamental plantings in the villages. Nearly all villages are located on the coastal fringe.

▲ The coast line is threatened by an increase of hurricanes, (three in the past five years), and the predicted rise in sea level. The impacts of


development and population growth on all vegetated areas are multiplying due to limited available land.

▲ The number of homes and businesses constructed on steep slopes is expanding onto mountainsides previously protected by native forest

▲ The potentially negative consequences of these conditions are being addressed through the urban and community forestry program in the territory. Projects for shoreline stabilization, village beautification, and preservation of threatened native forest communities are some of the objectives to be accomplished by the program's goals which include:

- Develop an effective Urban and Community Forestry Council
- Increase public awareness of community forest issues and appropriate remedial actions.
- Provide leadership, information, education, and technical assistance for community projects





## COMMONWEALTH OF THE NORTHERN

### MARIANAS:

The Commonwealth of the Northern Marianas is an archipelago of 14 islands. Rota, Tinian and Saipan are the largest and contain almost the entire population. The CNMI has approximately 43,000 people spread un-evenly with approximately 40,000 on Saipan, 2,000 on Rota and 1,000 living on Tinian.

Particularly on Saipan, there has been massive economic expansion in the last 15 years. The increase in construction development quickly rose without much time for city planning. Rota and Tinian are struggling to maintain some control while the pressure is leaning to their islands.

▲ In March of 1992, the America the Beautiful's Urban and Community Forestry program was initiated by the Department of Natural Resources. The America the Beautiful committee plays a key role in decision making

and implementation of the many tree planting projects. The committee is well aware of the importance of not only planting trees but also in the identification of their appropriate planting places. There are many local examples of planting activities which were done in inappropriate locations due the rapid community growth. The ATB committee hopes to minimize this problem in the future as well as educate in the maintenance of trees with problems to improve their growth characteristics.

▲ In addition to proper plantings, the committee is anxious to get the public involved in planting trees for the following reasons:

- Deforestation in the tropics leads to drastic environmental problems with soil erosion and suffocation of the coral reefs. Reforestation will help lower high energy costs from air conditioning and global warming



▲ Utah is state with unusual demographics. 1.8 million people call Utah home, and 85 percent of them live on the Wasatch Front, a band of land that is 20 miles wide and 100 miles long. This mostly urban area contains only 42 percent of the communities however. Forty-three percent of Utah's incorporated communities are towns with less than 800 people each. Most of these small communities depend on ranching, agriculture and tourism to support them and have very small economic bases to support community forestry.


▲ Utah's climate is not very conducive to growing trees. Only Nevada receives less annual precipitation than Utah's average 13.7 inches a year. Low precipitation, highly alkaline soils, hot summers, cold winters, low humidities, and ravenous insects all combine to make tree planting

programs a challenge in Utah. When Brigham Young and the first pioneers arrived in the Salt Lake Valley in 1847, they found no trees growing there; virtually every tree growing in Utah's communities has been planted and there is much room for additional trees.

▲ The U&CF program is rising to the meet current challenges. Some emphasis areas include:



- Coordinate partnerships by pulling all partners together into a single organization, known as TreeUtah, with various chapters
- Generate awareness of the value and benefits of trees
- Stimulate interest and promote community forestry management principles by offering tree care workshops, arborist training sessions and publishing related information



and educational documents to arborists,  
nurseries, extension agents, foresters and the  
general public

- Support and encourage scientific research and proper practices of arboriculture
- Extend outreach for challenge cost-share grants for tree planting and care
- Create a common forum via the Utah Community Forestry Council
- Establish ordinances, shadetree commissions, master plans, inventories and promote public awareness

◆◆◆ **SPECIAL ACCOMPLISHMENT** ◆◆◆

Students of Jackson Elementary School in Salt Lake City wrote legislation to have their state appropriate funds for tree planting through the public schools. The students' efforts resulted in the extremely successful "Leaf-it-to-us" program. They have been successful in securing \$10,000 every year since 1990. With matching funds from the participating schools, they have raised over \$40,000 dedicated to tree planting in Utah. The funds also assist in creating outdoor education areas on school grounds.



# WASHINGTON



▲ With seven distinct climatic zones, Washington State has some of the country's most diverse weather. Abundant rain falls in most of western Washington where the town of Forks averages 116.4 inches of rainfall annually. Near-desert areas in eastern Washington's Columbia Basin, Snake River and Moses Lake areas receive as little as 8.17 inches annually. Washington's two largest population centers, the Puget Sound area and the Inland Empire, are approximately 275 miles apart and separated by the Cascade Mountain Range.



▲ The varied climatic features contribute to Washington's diversity of urban landscapes and wealth. Communication and travel logistics compound the challenge of the state's urban and community forestry program.

▲ Cultural and community diversity and the many climatic growing areas underscore the need to develop a statewide network of urban forestry professionals and interested citizens. The state's Department of Natural Resources and the state's Community and Urban Forestry Council are aware of these needs and challenges and have developed program goals that recognize the state's diversity. These goals incorporate

the mission of the Department and the Council by addressing the need to :

- Promote community development and cohesiveness
- Plant the right tree in the right place
- Continue long-term tree stewardship
- Publicize urban forestry
- Expand the community and urban forest
- Educate and train youth in urban forestry



- Assist and support volunteers in urban forestry
- Educate and train all state citizens in urban forestry programs and activities



*Trees add beauty and grace to any community setting. They make life ~~more~~ enjoyable, peaceful, and relaxing.*



*Trees and landscaping ~~can~~ instill community pride. Studies have shown when communities participate in tree planting they ~~are more~~ likely to maintain and protect their trees.*

# WYOMING



▲ Wyoming has unique and complex environmental conditions which deserve special consideration. The variety of microclimates can be accounted for by the wide range of elevations, from the 3,125 foot prairie communities to high mountain communities. The highest mountain in Wyoming is 13,804 feet above sea level, (community forestry is rather limited there).

Most communities in Wyoming have an elevation of over 5,000 feet. This results in a shorter growing season and greater temperature extremes, with colder temperatures and more variable first and last frost dates.

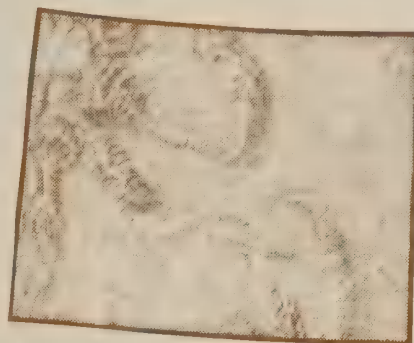
▲ Pioneers did not practice community forestry in Wyoming.

According to W.H. Alderman in the book Development of Horticulture on the Northern Great Plains, "it was reported in 1876, nine years

after the town was established, there were only 12 trees in Cheyenne."

▲ As part of the America the Beautiful program, community street tree inventories are being completed. Cheyenne now documents 17,274 trees. While cottonwood and Siberian elm are the predominant tree species, the inventories also revealed some 40 additional species, from arborvitae to walnut.

▲ Wyoming is the nation's least populated State.



The antelope population is 508,634, exceeding the human population of 453,588. Consequently, the tax base is considerably lower than in other states and therefore community in-

volvement and creative funding are necessary to promote tree planting events. Some goals and emphasis areas for U&CF in Wyoming include:



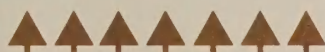


- Comprehensive tree inventories
- Funding through cost-share programs
- Getting people of all backgrounds involved in communities of all sizes
- Providing technical assistance



*People often become personally attached to trees that they or someone they love have planted.*

# REGIONAL URBAN FORESTRY CONTACTS



## **Northern Region (R1)** **Montana/North Dakota/Northern Idaho**

Federal Building  
P. O. Box 7669  
Missoula, MT 59807  
(406) 329-3521  
FAX: 406-329-3132

## **Rocky Mountsin Region (R2)** **Colorado/Kansas/Nebraska/South Dakota/ Wyoming**

11177 West 8th Avenue  
P. O. Box 25127  
Lakewood, CO 80225  
(303) 236-7074  
FAX: 303-236-9587

## **Southwestern Region (R3)** **Arizona/New Mexico**

Coconino National Forest  
2323 E. Greenlaw Lane  
Flagstaff, AZ 86004  
(602) 556-7406  
FAX: 602-527-9419

517 Gold Ave., S. W.  
Albuquerque, NM 87102  
(505) 842-3422  
FAX: (505) 842-3801

## **Intermountain Region (R4)** **Nevada/Southern Idaho/Utah/**

Federal Building  
324 25th Street  
Ogden, Utah 84401  
(801) 625-5189  
FAX: 801-625-5127

## **Pacific Southwest Region (R5)** **California/Hawaii/Pacific Islands**

630 Sansome St.  
San Francisco, CA 94111  
(415) 705-2587  
FAX: 415-705-2836

## **Pacific Northwest Region (R6)** **Oregon/Washington**

333 S.W. 1st Ave.  
P. O. Box 3623  
Portland, OR 97208  
(503) 326-2729  
FAX: 503-326-5569

## **Alaska Region (R10)**

201 East 9th Ave. Suite 206  
Anchorage, AK 99501  
(907) 271-2550  
FAX: 907-271-3992

# STATE URBAN FORESTRY CONTACTS



## ALASKA

DNR - Division of Forestry  
P.O. Box 107005  
3601 C. Street, Suite 1058  
Anchorage, AK 99510-7005  
(907) 762-2125

## ARIZONA

State Land Department  
1616 W. Adams  
Phoenix, AZ 85007  
(602) 542-4621

## CALIFORNIA

California Department of  
Forestry and Fire Protection  
1416 9th Street, Room 1540-38  
Sacramento, CA 95814  
(916) 653-9448

## COLORADO

Colorado State Forest Service  
Colorado State University  
Fort Collins, CO 80523  
(303) 491-6303

## HAWAII

Hawaii Division of Forestry  
1151 Punchbowl Street  
Honolulu, HI 96813  
(808) 548-8850

## IDAHO

Idaho Department of Lands  
P.O. Box 670  
Couer 'd Alene, ID 83814  
(208) 664-2171

## KANSAS

Kansas State & Extension Forestry  
2610 Claflin Road  
Manhattan, KS 66502  
(913) 537-7050

## MONTANA

Montana Department of State Lands - Forestry  
Division  
2705 Spurgin Road  
Missoula, MT 59801  
(406) 542-4300

## NEBRASKA

Nebraska Forest Service  
8015 W. Center Road  
Douglas County Extension Office  
Omaha, NE 68124  
(402) 444-7804

## NEVADA

Nevada Division of Forestry  
123 West Nye Road  
Carson City, NV 89710  
(702) 687-4353

## NEW MEXICO

New Mexico State Forestry Division  
P.O. Box 1948  
Santa Fe, NM 87504  
(505) 827-5842

## NORTH DAKOTA

North Dakota State University  
1511 East Interstate Ave.  
Bismarck, ND 58501  
(701) 224-4414





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**OREGON**

Oregon Department of Forestry  
2600 State Street  
Salem, OR 97310  
(503) 373-7854

**SOUTH DAKOTA**

124 1st Ave N.M.  
Watertown, SD 57201  
(605) 886-4203

**THE TERRITORIES**

**GUAM**

Forestry & Soil Resources  
Division, Dept. of Agriculture  
P.O. Box 2950  
Agana, Guam 96910  
(671)734-3948; (671)734-6570  
Fax: (671)734-0111 (dial "011")

**AMERICAN SAMOA**

Land Grant Program  
American Samoa Community College  
P.O. Box 1362  
Pago Pago, American Samoa 96799  
(684)699-1394, -2019, -1575  
Fax: (684)699-2605 (dial "011")

**COMMONWEALTH OF THE NORTHERN**

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Forestry Section  
Department of Natural Resources  
P.O. Box 221, CHRB  
Saipan, MP 96950  
(670)256-3317, -9869  
Fax: (670)322-7154 (dial "011")

**UTAH**

Division of State Lands and Forestry  
355 West North Temple  
3 Triad Center, Suite 400  
Salt Lake City, UT 84180  
(801) 538-5508

**WASHINGTON**

Washington Department of  
Natural Resources  
P.O. BOX 47046  
1111 Washington St. S.E.  
Olympia, WA 98504 - 7046  
(206) 902-1703

**WYOMING**

Wyoming State Forestry Division  
1100 West 22nd Street  
Cheyenne, WY 82002  
(307) 777-7586

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